

## Leithner Letter No. 233-236

### 26 March-26 June 2019

*Do deficits matter? Between Republican tax cuts and Democratic spending proposals, U.S. lawmakers act as if the answer is no. Lately, academic economists have echoed the sentiment, advocating large, unfunded infrastructure spending programs—the main thrust of former International Monetary Fund chief economist Olivier Blanchard’s recent presidential address to the American Economic Association. “Put bluntly,” Mr. Blanchard said, “public debt may have no fiscal cost.”*

*This view, known as [modern monetary theory](#), rests on false premises. One is that the [U.S. government will likely be able to borrow at low rates indefinitely](#). Another is that so long as the U.S. nominal growth rate is greater than the rate at which its government borrows, [America can always grow its way out of debt problems](#).*

*... Unfunded increases in infrastructure spending—as proposed by Mr. Blanchard and other leading academics—or an expansion in social spending under a future Democratic president, or even increased military spending in a war, would also boost the deficit. Those eventualities would put the public-debt ratio on an even steeper upward curve.*

*The premise that government borrowing costs will stay low indefinitely, even if the budget deficit remains high, is questionable, especially now that the Federal Reserve is shrinking demand for [Treasury bonds] by reducing the size of its holdings—while a ballooning budget deficit is increasing the supply.*

*It’s more likely that investors, particularly from overseas, will demand higher government bond yields to compensate for the elevated inflation or default risk they see from an ever-increasing public debt ratio. This would be made worse if larger budget deficits put downward pressure on the dollar by increasing the size of the U.S. trade deficit.*

*One must hope that the drift in the U.S. economic-policy debate toward fiscal laxity is a passing phase. If not, [we are well on the path to fiscal ruin](#).*

Desmond Lachman  
“Debt Denial Is a Threat to America”  
*The Wall Street Journal* (14 January 2019)

## Which Australian Households' Finances Are Most Vulnerable?

According to the bullish mainstream, Australian households' finances have long been strong and in the future will be able to withstand any conceivable headwind. The assessment of Shane Oliver, the chief economist at AMP Capital, is typical: "the trigger for major problems remains hard to see."<sup>1</sup> Like lawyers who compile prospectuses, he dutifully – and reasonably thoroughly – lists the risks arising from households' low (and falling) savings and high (and rising) debt. And like stockbrokers who tout IPOs, he heavily discounts these risks. Oliver concedes that "there are several threats." Individually, he reckons, they're unlikely – and collectively, he implies, they're miniscule:

- *"Higher interest rates* – the rise in debt means moves in interest rates are three times as potent compared to say 25 years ago ... However, the RBA is well aware of the rise in sensitivities flowing from higher debt and so ... it's likely to be very cautious in raising rates. [The Reserve Bank, in other words, is fully aware that Australians have become addicted to low rates; therefore it] is very unlikely to ... raise rates by anything like [two percentage points – and certainly won't allow them to rise to their 70-year historical average].
- *"Rising unemployment* ... will create debt-servicing problems. However, it is hard to see unemployment rising sharply anytime soon.
- *"Deflation* – high debt levels could become a problem if the global and local economies slip into deflation. Falling prices [of things like residential real estate] increase the real value of debt, which could cause debtors to cut back spending and sell assets, risking a vicious spiral. However, [as long as everybody ignores the sinking price of housing] the risk of deflation has been receding.
- *"A sharp collapse in home prices* – by undermining the collateral for much household debt – could cause severe damage. Fortunately, [so long as we shut our eyes, plug our ears and refuse to think] it is hard to see the trigger for a major collapse in house prices, i.e., much higher interest rates or unemployment. And full recourse loans provide a disincentive to just walk away from the home and mortgage unlike in parts of the U.S. during the [Global Financial Crisis]."

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<sup>1</sup> See [Australians' Love Affair with Debt – How Big Is the Risk?](#) (AMP Capital, 18 February 2018). See also Don Stammer, "Housing Crash Unlikely, Based on Real Debt Levels" (*The Australian*, 19 June 2018) and Michael Pascoe, [Why Household Debt Is not as Scary as Generally Claimed](#), *The New Daily*, 25 July 2018).

A small, growing and increasingly vocal minority counters that the strength of households' finances is more apparent than real. Moreover, major problems are easy to find. In particular, "high household debt levels amassed in the past decade have left Australian households among the most vulnerable [in the world] to a sharp rise in global interest rates." The Bank for International Settlements' head of monetary economics elaborated:

in many economies, the expansion [since the GFC] has been consumption-led. The evidence indicates that such expansions are less sustainable [than investment-led recoveries]. Our analysis suggests that a number of economies where household debt is historically high can be vulnerable, especially should interest rates rise considerably (see [Bank for International Settlements Sends Warning with Australian Household Debt at All-Time High](#), *The Sydney Morning Herald*, 26 June 2017).

On 12 September 2017, *The Australian* ("Banks Sitting on \$500 Billion 'Liar Loans'") was more forthright:

Australian banks are vastly underestimating the risks of a housing collapse, with the financial system sitting on \$500 billion worth of "liar loans" sold to borrowers who gave lenders false information to get a mortgage. The problem, evident in the latest mortgage survey carried out by investment bank UBS, could threaten the financial system as interest rates rise from record lows.

UBS found a third of borrowers were not "completely factual and accurate" on their home loan application in the last year ... [As a result] "both the probability of default and loss in the event of default ... continues to be underestimated. The impact on the broader economy from a housing downturn is likely to be more severe than the banks anticipate. Mortgage misrepresentation is systemic across Australia," UBS said.

On 6 December 2018 ("Banks Sitting on \$239 Billion Interest-Only Time Bomb"), *The Australian* was blunt:

Our largest banks have an unprecedented \$239 billion problem looming and nobody quite knows how it will play out. Interest-only home loans hit a stunning 48% of all mortgages not that long ago and now the reckoning is upon us. A useful report from rating agency Moody's puts it plainly: home loan delinquency rates simply must accelerate very soon as this rec-

ord \$239 billion worth of interest-only loans signed off back in 2014-2015 starts to [expire and thus requires either repayment or refinancing] ... The issue facing the market is that regulators have cut back the maximum level of interest-only lending to 30% and both investors and home loan borrowers will have to refinance at much higher rates ... In the Australian market in 2019, where there is no precedent for this interest-only bulge, borrowers are going to face a triple-whammy of higher rates, falling property prices and very tight credit.

Finally, *The Australian* ("Warning on House Prices, Banking Collapse," 10 December 2018) reported: "a severe collapse in house prices is the biggest threat to the Australian economy and regulators should be drafting contingency plans now in case of 'a crisis situation in one or more financial institutions,' the OECD has warned." In [Australian Housing Downturn Q&A – How Bad Will It Get?](#) (23 January 2019), Shane Oliver grudgingly acknowledges the unexpected (to him!) appearance of dark clouds yet remains upbeat about the weather. Forget the key points he asserted a year ago; instead, "Australian home prices are likely to fall another 5-10% this year, driven by a further 15% or so fall in Sydney and Melbourne. Tight credit ... and falling price expectations are the main negatives." What's driving the downdraught? Oliver finally confesses:

The fall in property prices comes after a boom – most recently over the five years to 2017 that in particular saw Sydney prices rise 72% and Melbourne prices gain 56%. This, on top of gains since the mid-1990s, saw a sharp deterioration in affordability, prices become overvalued relative to income, rents and their long-term trend and reach expensive levels by global standards. The surge in home prices went hand in hand with a surge in debt that has seen the ratio of household debt to income go from the low end of OECD countries to the top end. High prices and high debt left Australian housing very vulnerable.

Never mind that these points were just as apparent a year ago as they are today. How far might prices fall? According to Oliver,

for Sydney and Melbourne our [AMP's] base case has been that prices would have a top to bottom fall of around 20% out to 2020. However, the further plunge in auction clearance rates and acceleration in price falls late last year suggest a deeper fall possibly of around 25% (although it's impossible to be precise). This suggests around another 15% fall in Sydney and more in Melbourne. A 25% top to bottom drop would take prices back to where they were in late 2014/early 2015.

## Will home prices crash?

This is a bit of an unhelpful question like the “are we in a property bubble” questions of a few years ago as it’s hard to define and implies a degree of inevitability in terms of the implications. A 25% plunge in Sydney and Melbourne may seem like a crash but given the extent of the prior gains it’s arguably not. But a 25% national average fall would probably be interpreted as a crash. Our assessment is that this is unlikely unless we see much higher interest rates or unemployment (neither of which are expected) driving a sharp rise in defaults and forced property sales or a collapse in immigration (which would collapse demand). Strong population growth is still driving strong underlying demand for housing. While mortgage stress is a risk, it tends to be overstated, and is unlikely to be a generalised issue unless interest rates or unemployment shoot higher.

### *They Own Plenty of Assets ...*

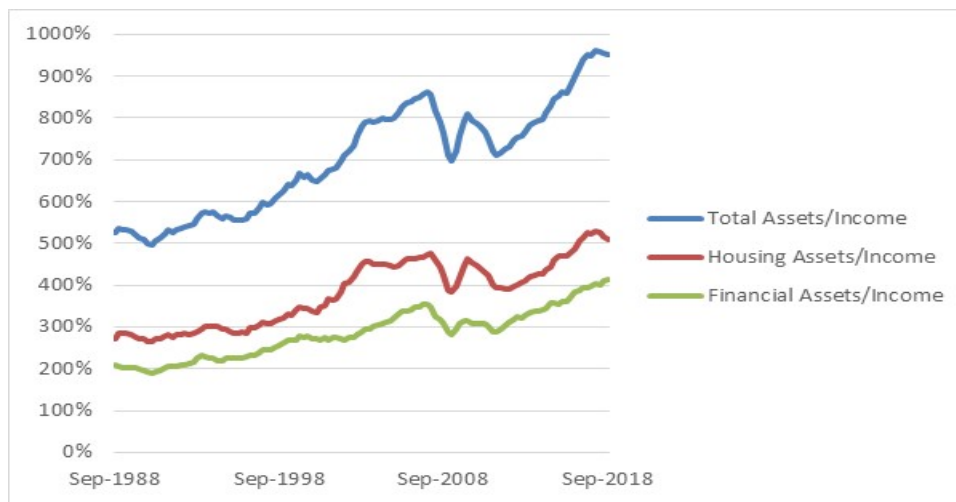
Whatever its other weaknesses, one pillar of the bulls’ case is certainly true: except during the GFC and its immediate aftermath, since the late-1980s Australian households have steadily accumulated assets – particularly owner-occupied housing and “investment” real estate (Figure 1).<sup>2</sup> In 1988 they held financial assets (i.e., bank deposits, stock and bonds, managed funds, life insurance and superannuation, etc.) equivalent to ca. 200% of their disposable income; housing and other real estate comprised ca. 300% of their income. By 2018, these percentages exceeded 400% and 500% respectively. For example, a household whose disposable income was \$100,000 in 2018 typically owned more than \$900,000 of assets – roughly \$400,000 of financial assets and \$500,000 of housing assets. By these measures, Australian households rank among the world’s richest.<sup>3</sup>

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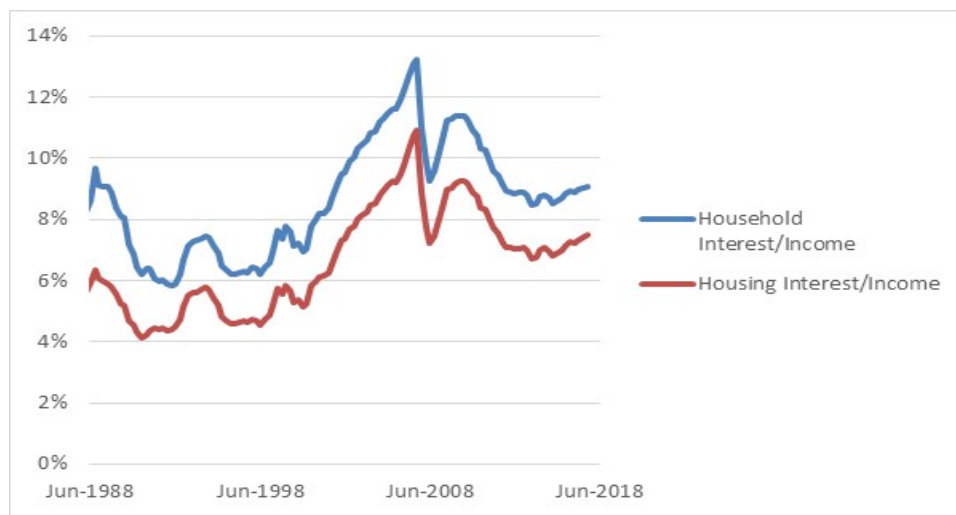
<sup>2</sup> Except where otherwise noted, the Reserve Bank of Australia has compiled the data plotted and analysed below (see file E2 “Household Finances” and E7 “Household Debt – Distribution”).

<sup>3</sup> “Australia has dislodged Switzerland as the country with the highest median household wealth at \$US191,453, according to Credit Suisse Research Institute’s 2018 Global Wealth Report,” said *Business Insider* ([Australia Has Grabbed Top Place in the Global Household Wealth Stakes](#), 19 October 2018). “The composition of household wealth in Australia is heavily skewed towards non-financial assets, which averaged \$US304,500 and form 60% of gross household assets [importantly, the mean was much lower]. Australia is also one of the countries with the most equitable distributions of wealth compared with other developed nations, such as the UK and US. Only 6% of Australians have net worth under \$US10,000, compared to 18% in the UK and 28% in the US. ‘We are fortunate to live in a country where median household wealth and wealth per adult are the world’s first and second highest, proving that collectively as a nation we are not just very

**Figure 1:**  
**Ratios of Household Assets to Disposable Income, Quarterly Data, 1988-2018**



**Figure 2:**  
**Ratios of Household Payments of Interest to Disposable Income, Quarterly Data, 1988-2018**



The finances of this country's households are also strong, say bulls, because they can afford what they've accumulated: specifically, payments of interest (expressed as a percentage of disposable income) are manageable (Figure 2). During the late-1980s, house-

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wealthy, but also that our wealth inequality is much lower than other developed countries,' [said Credit Suisse Australia's CEO]. This indicates that the economic fundamentals in Australia are very strong" (see [also The Wealthy Country: Australians Are the Richest People in the World](#), *The Sydney Morning Herald*, 9 November 2018).

holds allocated ca. 10% of their disposable income to payments of interest (including ca. 6% to mortgage debt). When pressed, bulls concede that these series' long-term trend is upward ( $R^2 = 0.53$ ); nonetheless, they emphasise, payments of interest are not higher – and hence no more onerous – now than they were 40 years ago.

*... But They Save Next to Nothing and Owe Heaps of Debt*

Have households saved assiduously and paid cash for the assets they've accumulated? No: they've steadily saved less and borrowed more. These trends, reckon sceptics, are chickens that one day will come home to roost. "Net household saving," says the Organisation for Economic Co-operation and Development,

is defined as the subtraction of household consumption expenditure from household disposable income, plus the change in net equity of households in pension funds. Household saving is the main domestic source of funds to finance capital investment, a major impetus for long-term economic growth. This indicator is measured as a percentage of household disposable income. All OECD countries compile their data according to the 2008 System of National Accounts (SNA).

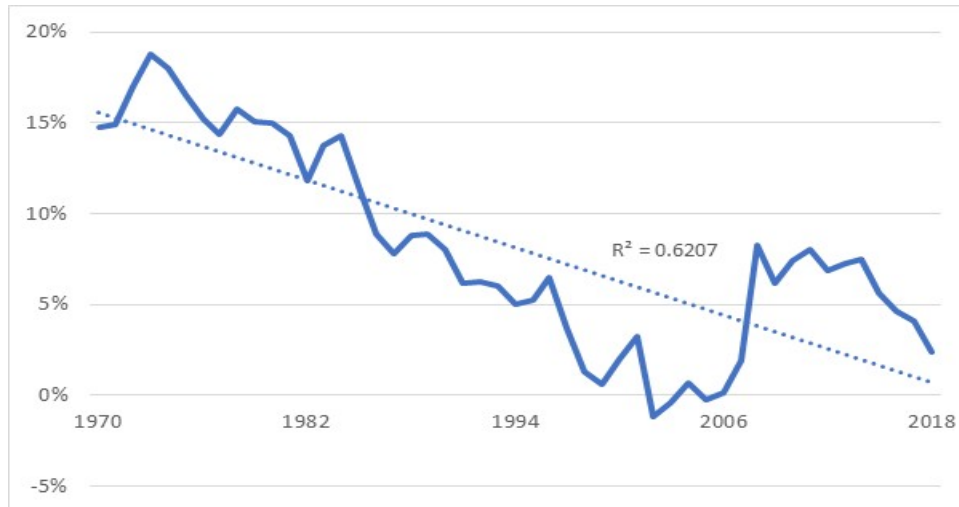
Using OECD data, Figure 3 plots the Australian household saving rate since 1970. From the early-1970s to the mid-2000s, it plummeted from almost 20% to a record low of less than 0%; it rebounded to ca. 8% during the GFC; since then, it's again receded towards its all-time low. For each \$1 of disposable income, households saved almost 20¢ in 1988 and less than 2.5¢ in 2018. "What makes the latest figure uncomfortable," reported ABC News ([Households Are Now Spending More Than They Are Earning – and That's Not Sustainable](#), 18 September 2018),

is that there is now little fat left to trim, and on current trends households will [soon] be spending more than they earn. That relationship is even more unsustainable now [that] house prices are falling, according to an analyst: "strengthening housing wealth accrued by the household sector has been an important factor supporting the decline in saving. With house prices now falling, that support has been removed."

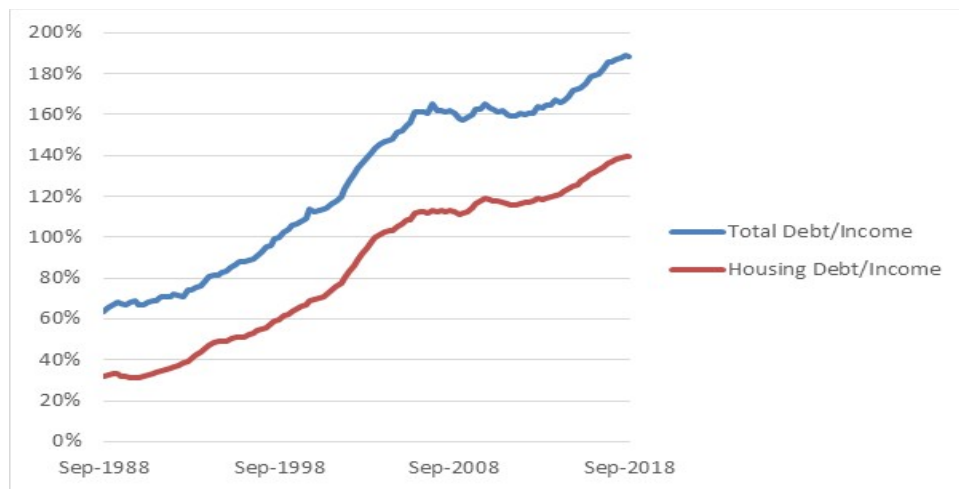
*Households that deplete their savings and borrow heavily in order to buy real estate depend upon low rates and rising housing prices – and suffer if rates rise or prices fall.* In the late-1980s, their ratio of total debt to disposable income was ca. 60%; of this, housing debt comprised ca. 35% (Figure 4). By 2018, the former ratio ballooned three-fold to 180% and the latter four-fold to 140%. By this measure, Australian households are among the world's

most heavily-indebted – and heavily-exposed to mortgage debt (see, for example, “Australia Most Exposed to Housing Debt Downturn,” *The Australian Financial Review*, 30 October 2018). Half a century ago, they saved diligently and borrowed relatively prudently; today, they save next to nothing and borrow aggressively.

**Figure 3:**  
**Australian Household Saving Rate, Annual Data, 1970-2018**



**Figure 4:**  
**Ratios of Household Debt to Disposable Income, Quarterly Data, 1988-2018**



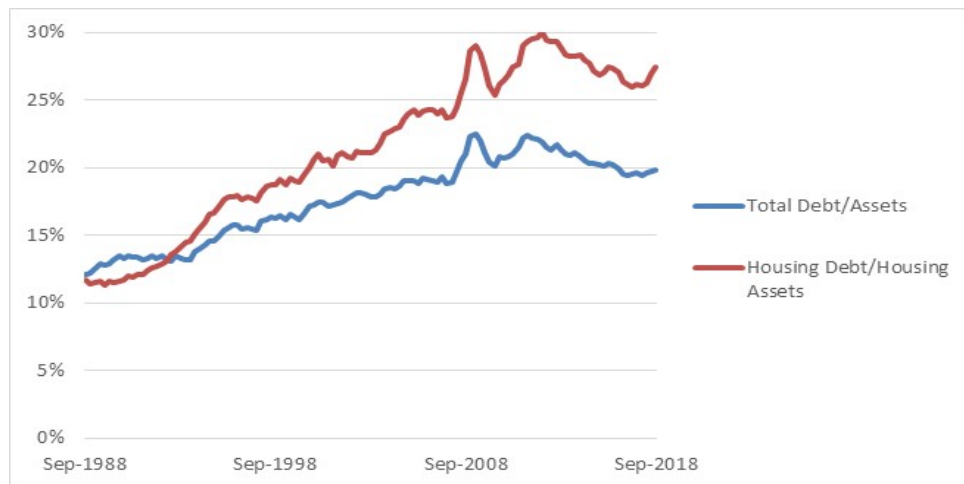
“That’s misleading!” bulls retort. Yes, they concede, households’ *gross borrowings* have waxed inexorably over time; more importantly, they add, the prices of the assets that they’ve borrowed in order to buy – namely real estate – have climbed almost as rapidly.



Liabilities have zoomed – but so too have assets; hence *debt net of assets* hasn't risen greatly – and certainly not alarmingly.<sup>4</sup> Indeed, according to Oliver in 2018,

while the average level of household debt for each man, woman and child in Australia has increased from \$11,837 in 1990 to \$93,943 now, this has been swamped by an increase in average [as opposed to median, which is much lower] wealth per person from \$86,376 to \$475,569. As a result, Australians' household balance sheets, as measured by net wealth (assets less debt), are healthy.

**Figure 5:**  
**Ratios of Debt to Assets, Quarterly Data, 1988-2018**



Since the late-1980s, ratios of household debt to assets have doubled (Figure 5). But, bulls note, they've risen from a very low base; moreover, since the GFC they've decreased. That's true, but it doesn't vitiate key criticisms. First, the valuation of an asset is a fuzzy, subjective matter of opinion, whereas a debt's is a rock-hard, objective matter of fact; accordingly, a fuzzy number divided by a precise number is an ambiguous number. Further, *what's clear is that Australia's households rank among the world's richest not because they've saved diligently and invested prudently, or because they've borrowed to buy*

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<sup>4</sup> Don Stammer goes further: once households' deposits are considered, leverage falls to ca. 105-110%. This percentage, he implies, isn't a matter of concern. The problem is that the people who own the deposits aren't, generally speaking, the people who owe the debt: Australians under the age of 55, for example, owe the bulk of household debt, whereas Australians above the age of 55 or those who are wealthy (i.e. the 80<sup>th</sup>-100<sup>th</sup> percentile of net worth) own the bulk of household deposits. *The "distributional" risk is clear: many Australian households holding significant sums of debt don't possess a sufficient buffer to mitigate unexpected changes to their financial circumstances.*

the most financial assets, or even because they own the greatest quantity of housing assets; instead, it's because they've borrowed heavily to buy what's become [some of the world's dearest residential real estate](#). Most fundamentally, [does expensive housing really – as the bulls imply – make a country's residents richer?](#) Or does it actually make some of them – namely those that strain to borrow, or can no longer afford a mortgage – [poorer?](#)

### *The Distribution of Household Debt*

This “distributional” point prompts the mainstream to play what it regards as its trump card. In Shane Oliver's words (Australians' Love Affair with Debt – How Big Is the Risk?), “debt is concentrated in higher income households who have a higher capacity to service it. This is particularly the case for investment property loans.” Figure 6 plots the distribution of gross household debt. (Note that it doesn't include all households – just those with debt.) Those in the first quintile (lowest 20% of income-earners) owe little: in 2002, half owed less than \$15,000 and half more than \$15,000. Moreover, in constant dollars their debt has hardly grown over time: in 2014 the median was \$16,000. In the second (20<sup>th</sup>-40<sup>th</sup> percentiles of income) quintile, the situation is much the same: median debt increased from \$21,000 in 2002 to \$26,000 in 2014. In the other quintiles, debt rises much more rapidly (between 110% and 145%). Comparing one quintile to the next, median debt rises steadily: to \$65,000 (averaged over the four years) in the third quintile, \$148,000 in the fourth and \$267,000 in the fifth. That supports the mainstream view.

**Figure 6:**  
**Median Household Debt (Thousands of 2014 Dollars)**  
**for Households Owing Any Debt, by Quintile of Disposable Income**

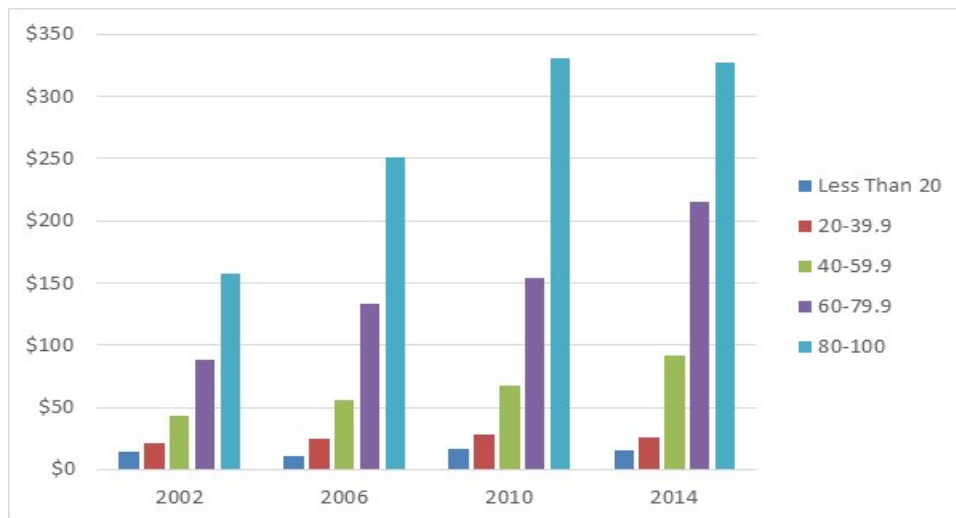
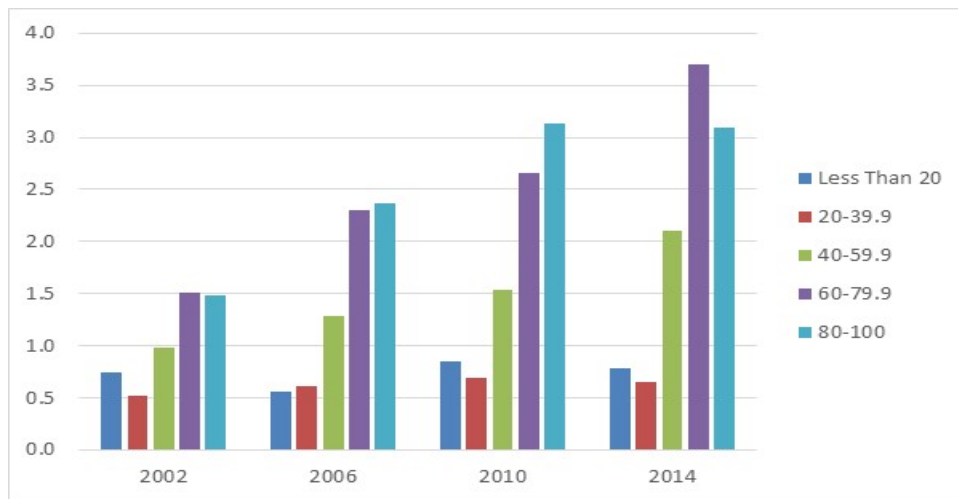


Figure 7 combines the RBA's figures with data from the Australian Bureau of Statistics (publication 6523.0, *Household Income and Wealth, Australia, 2013–14*), and thus restates the debt in Figure 6 as multiples of household disposable income. Within the third, fourth and fifth quartiles, multiples have risen over time. Generally, and regardless of the year in question, the greater is the household's current income the higher is the multiple of debt to income. These results, by and large, corroborate Oliver's assertion.

**Figure 7:**  
**Median Household Debt (for Households Owning Any Debt)**  
**as a Multiple of Disposable Income, by Quintile of Disposable Income**



### *Net Worth Is More Important Than Income*

Yet inferences from Figure 6 and Figure 7 rest upon a basic misconception. “Most people have it all wrong about wealth in America,” says Thomas Stanley, the co-author with William Danko of *The Millionaire Next Door: The Surprising Secrets of America's Wealthy* (HarperBusiness, 2000):

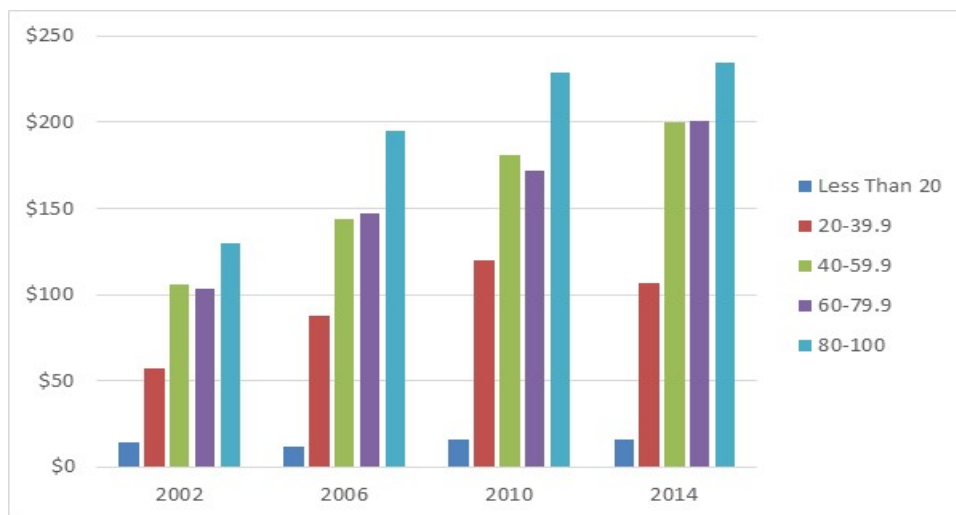
Wealth [i.e., what you own minus what you owe = net worth] is not the same as income. If you make a good income each year and spend it all, you are not getting wealthier. You are just living high. Wealth is what you accumulate, not what you spend.

Net worth is relatively stable and durable; income, however, is variable and can be fragile. As a determinant of your future standard of living, today's net worth certainly matters but current income probably doesn't: that is, current income is a poor predictor of future net worth. Hence low current income doesn't preclude the accumulation of high

net worth – but high-income earners who spend all they earn can't accumulate wealth. Emotionally as well as financially, wealth begets security: the higher is your net worth, the less you depend upon your salary or suffer if you lose your job. Further, once one possesses wealth then one possesses the option of high current income. *In short, high current income isn't a necessary condition of high net worth; but high net worth is a sufficient condition of high current income.* Both income and wealth reflect personal choices – and these choices have moral bases and enduring consequences. Wealth stems from a long-term, disciplined outlook and desire for financial independence; high income and low net worth, on the other hand, result from a short-term and impulsive orientation and voracious appetite for consumer goods. If you save and invest wisely some of your salary, then your net worth will probably increase; but if you spend all you earn then your wealth remains unchanged – and if you spend more than you earn then it decreases. Accordingly, unless you change your spending habits then increasing your income typically won't solve – and may exacerbate – your financial problems.

What happens when we stratify the foregoing analysis by net worth rather than income? The results (Figure 8) continue to corroborate Oliver's assertion. Households in the first quintile (poorest 20%) owe relatively little: in 2002, half owed less than \$14,000 and half more than \$14,000. Median total debt in the second (20<sup>th</sup>-40<sup>th</sup> percentile) quintile of households is \$93,000 (averaged over all years); in the third quintile it is \$158,000, in the fourth it's \$156,000 and in the richest 20% it's \$197,000.

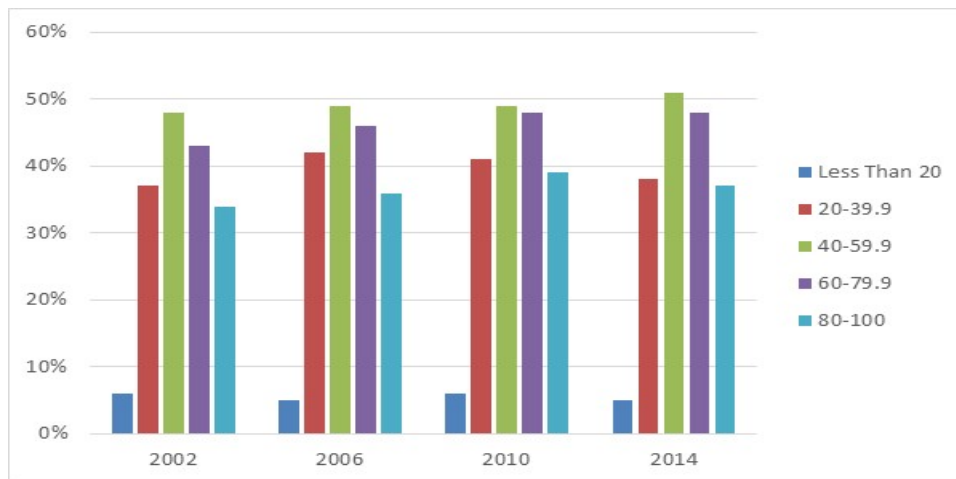
**Figure 8:**  
**Median Household Debt (Thousands of 2014 Dollars) for Households Owning Any Debt, by Quintile of Net Worth**



*Owner-Occupiers*

Who's most likely to feel mortgage stress? One answer is: "those who are most likely to have mortgages." Figure 9 plots the percentage of households per quintile of net worth who have an owner-occupier mortgage. Among the poorest 20%, only ca. 5% do so; moreover, this percentage has shrunk over time. The second quintile is more likely to have owner-occupied debt: the mean is 38%, but it, too, has decreased since 2006. The third and fourth quintiles are most likely to possess mortgages: in 2014, roughly half of the households in these "middle class" quartiles did so. They contain higher means of mortgage-holders than the richest quintile (whose mean in 2014 was less than 40%). *Indeed, households within the richest quintile are LESS likely to have mortgages than those within the second poorest.* That hardly corroborates the mainstream's assertion.

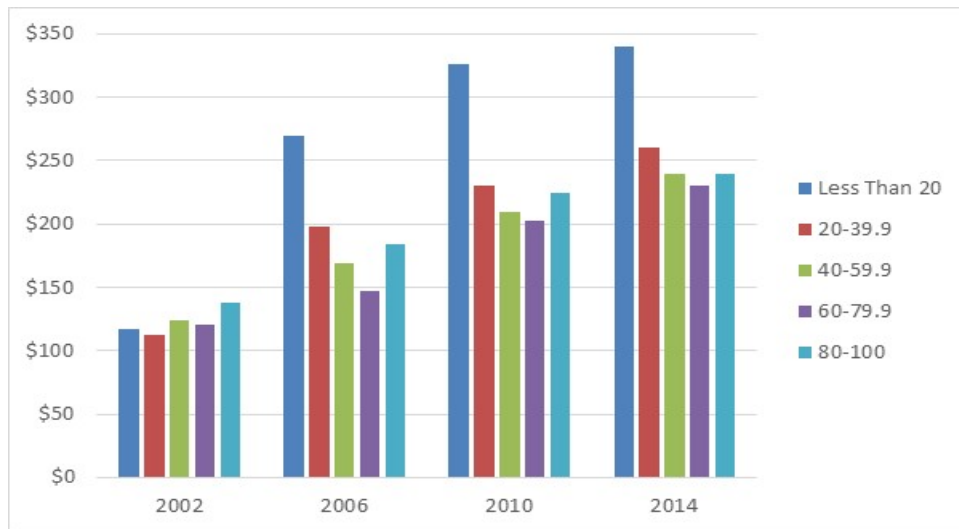
**Figure 9:**  
**Percentage of Households Owning Owner-Occupier Housing Debt,**  
**by Quintile of Net Worth**



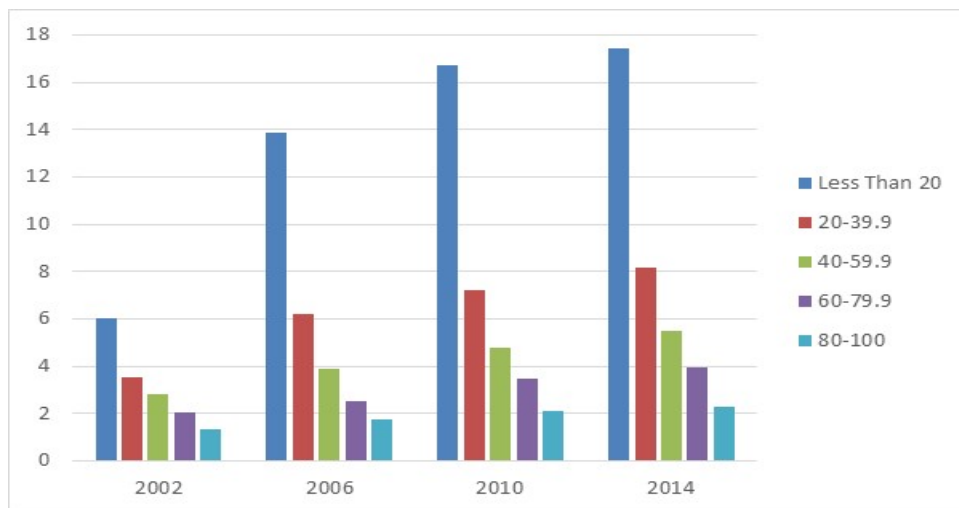
Who's most likely to feel mortgage stress? A better answer is: "those who have the biggest mortgages." Figure 10 contradicts the mainstream's assertion: generally speaking, the higher is the quintile of net worth, the LOWER is the gross amount of owner-occupied mortgage debt. Admittedly, 2002 was an exception: in that year, and as the mainstream asserts, the higher was the household's net worth, the greater was its mortgage debt. The relationship, however was weak: the poorest 20% of households owed a median of \$117,000, whereas the richest 20% owed a median of \$138,000. Moreover, since then this relationship has disappeared and, if anything, reversed: in 2014 the median mortgage balance of the poorest 20% greatly exceeded that of the richest 20%! The second and third quintiles, too, exceeded the fifth. At first glance this result seems highly anomalous or even suspect;<sup>5</sup> hence it's reasonable to exclude it. But that avails the mainstream little: in

2006, 2010 and 2014, mortgages in the second-poorest quintile were bigger than those in the richest. These results contradict Oliver's assertion.

**Figure 10:**  
**Median Value (Thousands of 2014 Dollars) of Owner-Occupier Housing Debt (for Households Owing Such Debt), by Quintile of Net Worth**



**Figure 11:**  
**Owner-Occupier Housing Debt (for Households Owing Such Debt) as a Multiple of Disposable Income, by Quintile of Net Worth**



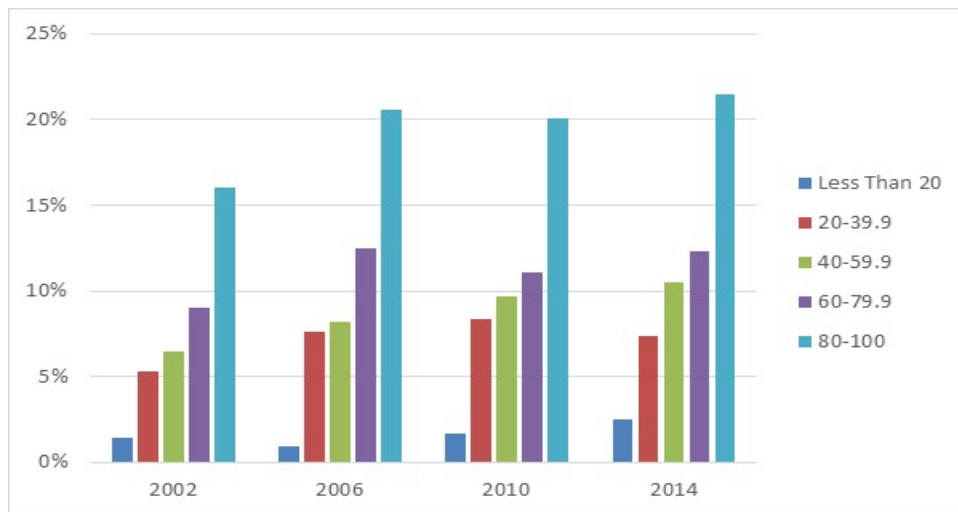
<sup>5</sup> The data in Figure 8 include only the households with a mortgage – yet a very low and declining (ca. 5% in 2014) percentage of households in the poorest quintile have a mortgage. This 5% is likely highly unrepresentative of the 95% that doesn't.

Who's most likely to feel mortgage stress? Perhaps the best answer is: "households who have the biggest mortgages relative to disposable income." Combining the RBA's and ABS's data, Figure 11 restates the results in Figure 10 as multiples of household disposable income. Within each quartile, the multiple has risen over time – but has risen most in the poorest quartile and least in the richest. Further, and regardless of the year in question, *the greater is the household's net worth the LOWER is its multiple of debt to income.* These relationships are the polar opposite of Oliver's assertion.

#### *What about Investment Property Loans?*

At this point, I suspect, bulls will object: "this analysis doesn't really test what Oliver said. He said 'debt is concentrated in higher income households ... This is particularly the case for investment property loans.'" Figure 9, Figure 10 and Figure 11 analysed owner-occupiers; what about property investors? Figure 12 supports the mainstream's assertion. Fewer than 5% of households in the poorest quintile of households own an investment property, but as the household's wealth rises so does the probability that it owns one: in the richest quintile after 2002, ca. 20% do so.

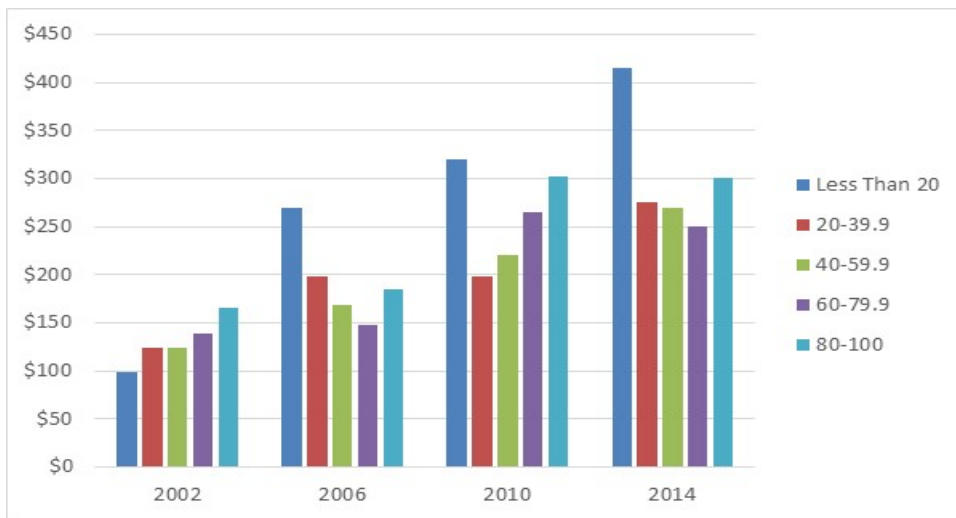
**Figure 12:**  
**Percentage of Households Owning "Investment" Property Debt,**  
**by Quintile of Net Worth**



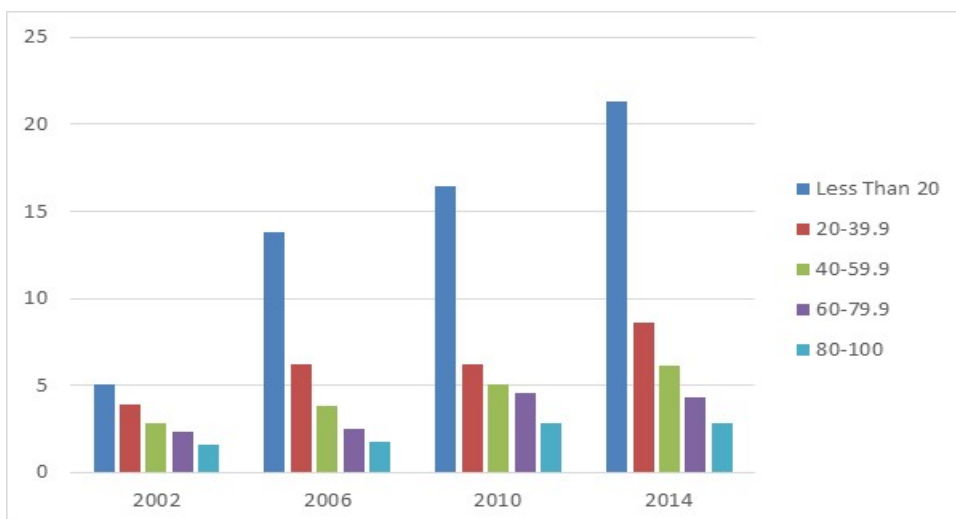
From the mainstream's point of view, however, the results in Figure 13 are inconsistent: in 2002 and (if we exclude the anomalous first quintile) 2010, the higher is the quintile of net worth, the greater is the gross amount of "investment" property debt. But in 2006 and 2014, this relationship is absent. When it comes to investment property loans, the mainstream's assertion is peek-a-boo: sometimes it appears, but at other times it

doesn't. Figure 14 restates investment loan obligations as multiples of disposable income. Within each quintile, the multiple of debt to income has risen over time – but it's risen most in the poorest quartile and least in the richest. Further, and regardless of the year, the greater is the household's net worth the lower is its multiple of investment debt to disposable income. As Figure 10 did, so does Figure 14: these relationships (classified by net worth rather than income) contradict the mainstream.

**Figure 13:**  
**Median Value of "Investment" Property Debt**  
**(for Households Owing Such Debt), by Quintile of Net Worth**



**Figure 14:**  
**Investment Housing Debt (for Households Owing Such Debt)**  
**as a Multiple of Disposable Income, by Quintile of Net Worth**

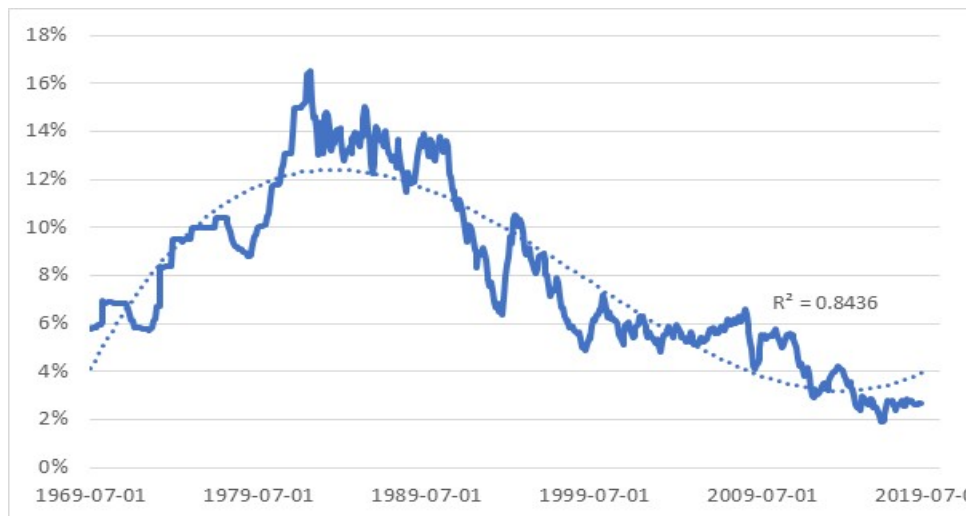




### *What Happens When Rates Rise?*

Under current conditions, bulls rightly observe, most households can service their debts without too much problem. *The trouble is that current conditions favour debtors and punish savers; by the standards of most other eras, they're anything but normal.* Bulls tacitly concede this point – why else would they expect the “normalisation” of rates (see below)? The yield of ten-year Commonwealth Government bonds is a significant determinant of – and thus serves as a crude proxy for – mortgage and investment property rates. Figure 15 plots this yield since 1969. It skyrocketed from ca. 6% in the late-1960s to more than 16% in the early-1980s – by far the highest in Australian history. It then began to fall steadily, and over the decades has decreased drastically: by August 2016 it was 1.88%. Hence bears stress what bulls discount: *since the 1980s, debt has skyrocketed because rates of interest have plummeted; hence households can service this debt because its terms have become very lenient.* Indeed, since the late-1980s a superficially-virtuous circle has blessed Australian households: mortgage rates have fallen, therefore they've borrowed more – and their insatiable demand for real estate has put a rocket under its price. Yet falling rates have kept interest roughly constant as a percentage of income. Real estate's increasing price, in turn, has strengthened key ratios such as the percentage of assets to income; it has also created the collateral that has enabled households to borrow more, etc.

**Figure 15:**  
**Ten-Year Commonwealth Government Bonds, Monthly Observations, 1969-2019**



By February 2018, the ten-year bond's yield rebounded to 2.86%. One of the aforementioned bulls, Don Stammer, acknowledges that an epochal inflection point may be occurring. In “End is Nigh for Decades of Falling Interest Rates” (*The Australian*, 2 June 2015) he wrote:

Interest rates have been trending down in Australia since 1990 and even longer – since the early 1980s – in other rich countries ... As a result, market prices of a wide range of assets have increased [and] borrowers have benefited ... [But] in my view, we're about at the end of the multi-decade decline in interest rates, in Australia and globally; but the normalisation of rates will be a drawn out, and at times bumpy, experience.

What does “normalisation” mean? An eventual reversion towards the average of the past (say) 70 years? If the benchmark yield continues to rise, and if it continues to influence mortgage and investment loan rates, then those rates, too, will lift – and perhaps boost to unsustainable levels some households' ratio of interest to income. *There's no need to posit Armageddon: rates modestly higher than today's but well below their peak in the early-1980s could nonetheless wreak significant and widespread damage.* During the decade to 1955, the yield of the ten-year Commonwealth bond averaged 4.5%, and in the decade to 1965 it averaged 5.5%. Then as today, mortgage rates were ca. 2.0-2.5 percentage points higher than the bond yield. Can all of today's indebted households manage mortgage rates of 7-8%? If not, then some will be forced to sell investment and other property – which will place downward pressure upon the price of real estate as a whole, and perhaps reverse households' ratio of assets to income. In other words, ask the bears, might the hitherto-virtuous circle subsequently become vicious?

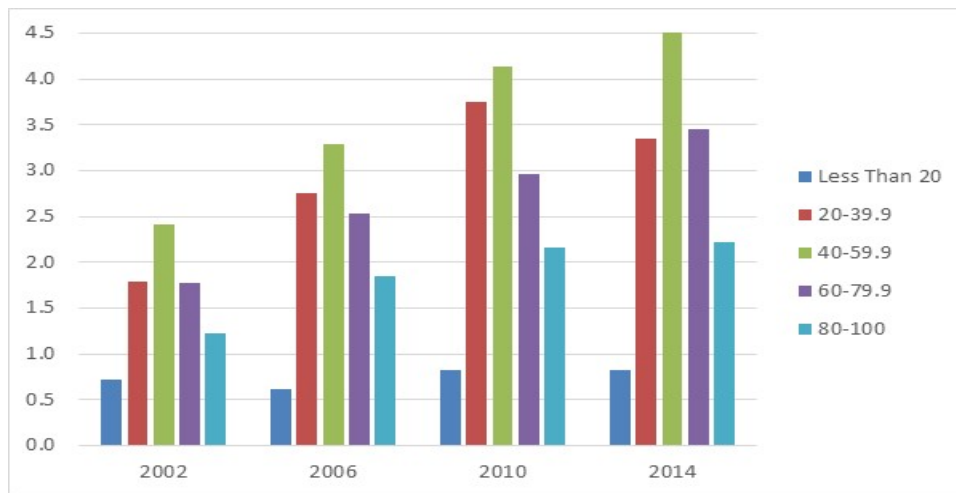
#### *Some “Distributional” Relationships the Mainstream Ignores*

The mainstream's analysis of household debt focusses upon owner-occupied and investor home loans. That's not unreasonable: households are generally more likely to hold these loans than any other category of debt. But it fumbles a key question: who's most likely to face debt stress? Figure 16, which restates the results in Figure 8 as multiples of household disposable income, summarises what I believe is the most valid answer. Within each quartile, the multiple has risen over time – but it's increased most in the middle quartiles and least in the poorest and richest. Further, and regardless of the year in question, the multiple is lowest in the poorest and richest quartiles and highest in the middle quartiles. *Who's most likely to face debt stress in Australia? It's neither the poorest nor the richest households; it's the three middle quintiles – that is, the middle class.*

This result, it seems to me, doesn't merely refute the mainstream's assertion; it also has broader and deeper implications. It reflects, albeit indistinctly, the distribution of wealth – and of economic and financial risk – in the U.S. In that country, reported *The Wall Street Journal* in “How to Save Like the Rich and the Upper Middle Class (Hint: It's Not with Your House)” on 26 December 2014,

The very rich often live in expensive houses, but that's not where most of their wealth is. In fact, for the wealthiest 1% of Americans, only about 9% of their total net worth is tied up in their home. That's compared to 63% for the broad middle class.

**Figure 16:**  
**Total Median Household Debt (Thousands of 2014 Dollars) for Households Owning Any Debt, as a Multiple of Disposable Income, by Quintile of Net Worth**



That's one of the key findings of research released earlier that month.<sup>6</sup> Edward Wolff, an economist at New York University, analysed data from the Survey of Consumer Finance.<sup>7</sup> These data allowed him to contrast the widely differing portfolios of the wealthiest 1% of households, the next 19% (which he regards as upper-middle class, though the top of this range is by most standards wealthy too) and the middle 60%. The top 1% of Americans – whose net worth in 2014 exceeded \$7.8 million – hold nearly half of their gross assets in unincorporated business equity and real estate. They hold an additional 27% of their wealth in the form of financial securities, such as corporate stock, mutual funds and personal trusts. Typically, however, their personal residences comprise relatively little (9%) of their assets.

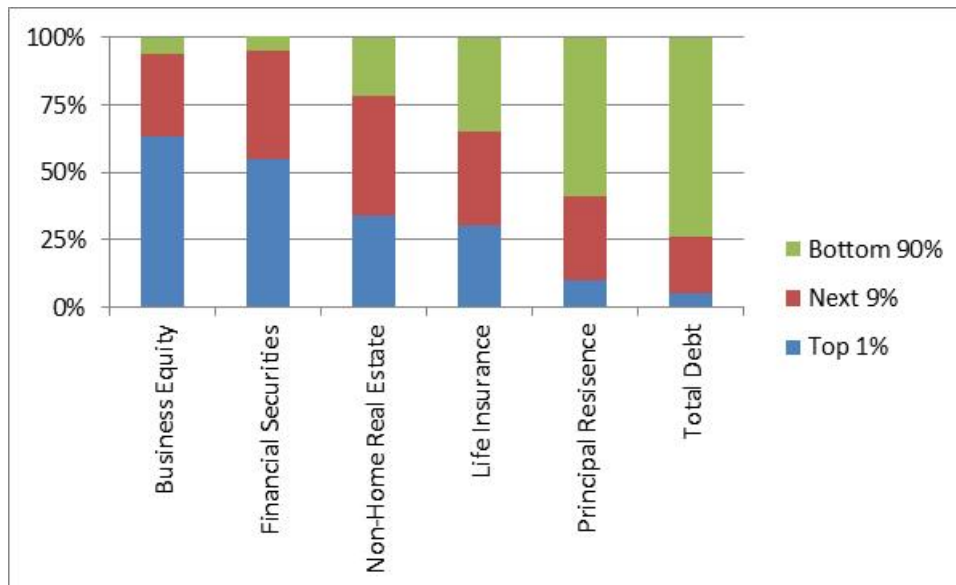
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<sup>6</sup> The [Survey of Consumer Finances](#) (SCF) is a triennial statistical survey sponsored since 1992 by the Federal Reserve Board and Treasury Department. It provides the most comprehensive picture of the balance sheet, income and other characteristics of households in the U.S. See also Chap. 5 of Chris Leithner, [The Bourgeois Manifesto: the Robinson Crusoe Ethic versus the Distemper of Our Times](#) (CreateSpace, 2017).

<sup>7</sup> Edward N. Wolff, [Household Wealth in the United States, 1962-2013: What Happened over the Great Recession?](#) (National Bureau of Economic Research, Working Paper 20733, December 2014).

For the middle class (middle 60% of the distribution), on the other hand, the picture is very different. Their homes constitute nearly two-thirds (63%) of their wealth. Imagine a young family who own a house worth \$200,000, owe \$150,000 on their mortgage, and have \$50,000 in cash and retirement accounts. That family's residence comprises 80% of its gross assets. The financial profile of the upper-middle class, too, is very different. This group – the “next 19%” with more than \$400,000 but less than \$7.8 million of gross assets – concentrate less of these assets in business equity and financial securities than the rich; they also focus less in their residence than the middle class.

**Figure 17:**  
**Percentages of Selected Assets and Liabilities**  
**Owned by America's Wealthiest and the Rest**



Wolff distinguished the percentage shares of categories of total assets held by the top 1%, the next 9% and the remaining 90% of households. Figure 17 summarises his findings. The wealthiest 10% of households own virtually all of the business equity (94%) and financial assets (95%), and most of the non-residential real estate (78%) and life insurance (75%). In sharp contrast, the bottom 90% hold 59% of the principal places of residence (by value) and 74% of the total household debt (i.e., automotive, credit card, mortgage and student debt).

*This distribution of assets and liabilities helps to clarify why the GFC, which for most American households took the form of a housing bust, was much more difficult for the middle and bottom than for the top of the distribution of wealth. It also helps to explain why the “recovery” has been so disappointing for so many – and therefore why increasing numbers of Ameri-*

cans have flocked to “populist” politicians like Donald Trump, Bernie Sanders and others. The top of the distribution isn’t merely much richer than the middle: its wealth takes a very different form. The wealthiest own lightly-leveraged business and financial assets; the others, to the extent that they own anything, own the heavily-mortgaged family home. Since 2009, housing has regained ground relatively slowly; by comparison, corporate profitability and stock markets have boomed. The major “middle class” asset [has grown comparatively sluggishly](#) (and in some places still hasn’t returned to the levels it scaled in 2007). As a result, for the past decade many middle-class households have struggled. In diametric contrast, the assets of the wealthiest households quickly and have greatly exceeded their pre-GFC peaks.

### *Summary and Conclusions*

Since the late-1980s, Australian households have abandoned their previous habit of saving. Spurred by decades of falling rates of interest, they’ve also borrowed heavily; as a result, many have – some deliberately, others unwittingly but most of them aggressively – tied their fortunes to historically-low rates and what’s become some of the world’s dearest housing. The mainstream regards and even applauds these trends as sensible responses to evolving circumstances. “The trigger for major problems,” says Shane Oliver, “remains hard to see.” Is that because they don’t exist or his vision is poor?

High net worth households are by definition best-placed to withstand debt stress: after all, they own the most relative to what they owe. For the bullish mainstream, that’s a problem. As it acknowledges, high-income households owe a disproportionate share of household debt. *Yet high-income households typically aren’t high net worth households.*<sup>8</sup> As a

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<sup>8</sup> In the U.S., salary peaks, roughly speaking, in the salary-earner’s 40s; thereafter, it stagnates and then slowly decreases (see, for example, two different articles with the same title – “Here’s the Age at which You’ll Earn the Most in Your Career” – published by CNBC on different dates: one on [17 August 2017](#) and the other on [2 November 2018](#); see also [Peak Earnings for Men Come in Their Early 50s](#), *MarketWatch*, 18 June 2015). The typical American’s net worth, on the other hand, peaks at age 60-65 (see [Here Are the Ages You Financially Peak at Everything Throughout Life – from Salary to Net Worth](#), *Business Insider*, 26 March 2018).

The plot below (which uses CES data) shows that income and wealth *are* related; the relationship, however, is complex (see, for example, [Income is Not Net Worth: the Raw Data](#), *Don’t Quit Your Day Job*, 11 March 2016). As people’s income rises, their net worth tends to increase; on the other hand, for any given level of income, wealth varies enormously. In a [follow-up analysis](#), DQYDJ plotted the correlation ( $R^2$ ), stratified by age, of income and wealth (see the next page). For young adults (less than 30 years of age), income and net worth are unrelated. At 30-35 years of age, however, there’s a strong correlation. But it drops steeply during one’s prime earning years; indeed, af-

result – and as the mainstream overlooks – the wealthiest 20% aren't the most indebted (as a multiple of disposable income): the middle 60% are.

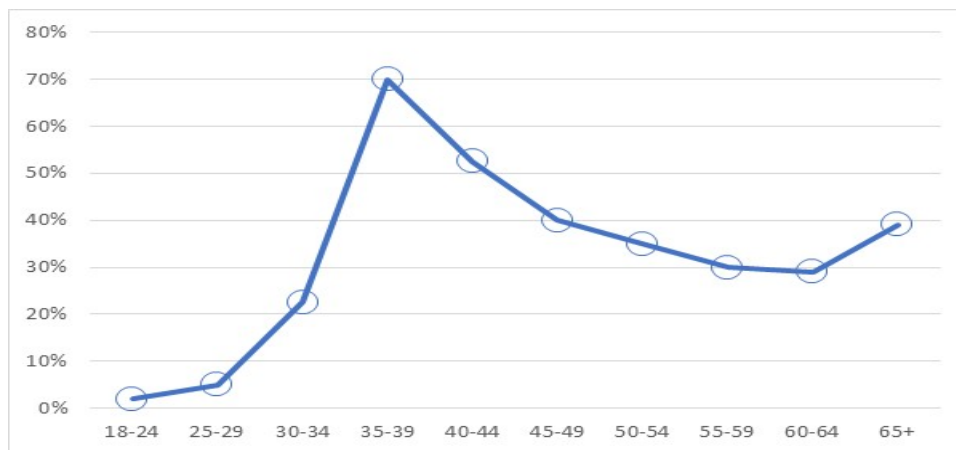
Who is most likely to hold owner-occupied mortgages? It's neither the poorest or richest households: it's the middle. Whose mortgage is biggest in absolute terms? Let's be charitable to the mainstream and remove the anomalous poorest quintile (within which fewer than 5% hold mortgages). But this avails little: the median mortgage in the second-poorest quintile is greater than the median in the richest. Further, the multiple of mortgage debt to disposable income defies the mainstream's expectation: the richer is the household, the *lower* is the multiple. When attention turns to investment property loans, reality is somewhat kinder to the conventional wisdom. The richer is the household, the higher the likelihood that it has such a loan. But there's no clear or consistent relationship between a household's wealth and its gross amount of investment property loans. There is, however, a clear and consistent relationship between the household's wealth and the loan's multiple of disposable income: unfortunately for the mainstream, that relationship is the polar opposite of what it asserts.

Are Australian households' finances vulnerable? A better – because it's more precise – question is: which households are most vulnerable? From the foregoing analysis and its implications, I draw three conclusions:

1. Shane Oliver's contention in 2018 (see p. 9) is partly true. It's true that "debt is concentrated in higher income households." However, it's not true that these households "have a higher capacity to service it," and that "this is particularly the case for investment property loans." Instead, *high income/middle net worth*

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ter 50 years of age – a time, it's important to note, when net worth tends to increase, the correlation is rather weak.



*households are most exposed to – but are not best-placed to withstand – higher rates of interest and falling prices of residential real estate.*

2. Will the virtuous circle of the past generation (whereby ever-lower rates of interest have encouraged households to borrow heavily, which put upward pressure upon housing prices, which strengthened households' balance sheets, which allowed them to borrow more) become a vicious circle of higher rates and falling prices that obliges vulnerable households to retrench? The mainstream's answer to this question is generally complacent ("while mortgage stress is a risk," Oliver asserted last month, "it tends to be overstated ...") and the sceptical minority's is often histrionic.<sup>9</sup> My hunch is that a vicious circle is more plausible than the untroubled bulls admit, but not as certain as the strident bears insist.<sup>10</sup>
  
3. *The mainstream doesn't necessarily underestimate the likelihood of a downturn: however, if it occurs then its consequences will likely be more widespread and harsher than the conventional wisdom assumes.* A slump of Australia's debt-real estate cycle, if (and, I suspect, when) it occurs, will most affect the middle 60% of the distribution of wealth – not, as the mainstream supposes, the top-20% of the distribution of disposable income. The downturn could be expectedly severe because the middle 60% of households have borrowed most (both as gross amounts and as multiples of disposable income) in order to buy owner-occupied and investment housing. Their financial health thus depends heavily upon low rates of interest and high prices of real estate. In their vulnerability lie risks for the exposed, opportunities for the prepared – and surprises for bulls.

*Chris Leithner*

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<sup>9</sup> See, for example, [The Phone Call That Could "Drop House Prices by 80 Per Cent" If Another Financial Crisis Hits](#), news.com.au, 25 September 2018.

<sup>10</sup> Despite its hyperbolic title, [Australian Housing Market "Sleepwalking into Disaster"](#) (news.com.au, 24 March 2018) makes some sensible points. "What makes rare events so debilitating is that we've forgotten how to prepare for them. Very rare events are the most dangerous. Once all the people who lived through something die off, we get complacent ... Australia's belief in the inevitability of house price growth may be a special case ... On average, house prices in advanced economies go down after 12 years of going up. And when they fall, they do so for an average of five years, but ... Australia hasn't had a five-year period where national house prices go backwards for a couple of generations. The memory of it is almost forgotten and [we] believe it won't happen here. And that just makes us all the more vulnerable."